

AMENDMENTS TO THE CLAIMS

1. (Previously Amended) A method [;or providing pseudo gray levels between true gray levels on a color display, said method comprising:
 - determining a number of said true gray levels natively supported by said color display, wherein said true gray levels each correspond to all color drive settings for a pixel being equal value;
 - determining an increased number of gray levels desired to be available for display on said color display, wherein said increased number of gray levels includes said true gray levels and said pseudo gray levels, and wherein said increased number of gray levels is a multiple of said number of true gray levels natively supported by said color display;
 - receiving a number that identifies a level of said increased number of gray levels to be displayed at a select pixel;
 - dividing said received number by said multiple to compute a quotient;
 - selecting a true gray level of said true gray levels for the select pixel, said true gray level having each color drive setting for said pixel being equal to said quotient; and
 - based on a remainder value obtained from said dividing, adjusting one or more of said color drive settings of said select pixel to set the select pixel to one of the pseudo gray levels, wherein said pseudo gray level will be perceived as falling between two of said true gray levels.
2. (Original) The method of claim 1 wherein said one or more drive settings of said pixel are adjusted by one level.
3. (Original) The method of claim 1 wherein there are three drive settings for said pixel.
4. (Original) The method of claim 3 wherein one drive setting differs from the other two drive settings by one level.
5. (Original) The method of claim 4 wherein said three drive settings are red, green and blue.

6. (Original) The method of claim 5 wherein said red drive setting is adjusted.
7. (Original) The method of claim 5 wherein said green drive setting is adjusted.
8. (Original) The method of claim 5 wherein said red drive setting and said green drive setting are adjusted.
- 9-20. (Cancelled by Examiner).
21. (Previously Amended) A method of enhancing gray scales on a color display, wherein a plurality of color drive settings are used for outputting a pixel, said method comprising:
 - capturing an image to be represented as multiple shades of gray; and
 - mapping said multiple shades of gray of said image to provide a depth of gray levels for a pixel beyond what is available in true gray scale on said color display, wherein said true gray scale comprises a plurality of gray levels that each correspond to all of said color drive settings for said pixel being equal value, and wherein said mapping comprises:
 - determining a number of gray levels in said true gray scale;
 - determining an increased number of gray levels desired to be available for display on said color display to provide said depth, wherein said increased number of levels includes said gray levels of said true gray scale and pseudo gray levels that are perceivable as falling between two levels of said true gray scale;
 - receiving for said pixel in said image, a number that identifies a level of said increased number of gray levels to be displayed at said pixel;
 - dividing said received number by a ratio of said increased number of gray levels to said number of gray levels in said true gray scale to compute a quotient;
 - selecting a gray level of said true gray scale for the pixel said selected gray level having each of said plurality of color drive settings for said pixel being equal to said quotient; and
 - based on a remainder value obtained from said dividing, adjusting one or more of said color drive settings of said pixel to set the select pixel to one of the pseudo gray levels.

22. (Previously Canceled)
23. (Previously Canceled)
24. (Previously Amended) The method of claim 21 wherein said plurality of color drive settings comprise three drive settings.
25. (Original) The method of claim 24 wherein said three drive settings are red, green and blue.
26. (Original) The method of claim 25, said method further comprising: adjusting said three drive settings based on the level of brightness needed for display.
- 27-44. (Cancelled by Examiner).
45. (Previously Added) A method of enhancing gray scale output on a color display, said method comprising:
- determining a number of true gray levels natively supported by said color display', wherein said true gray levels each correspond to all color drive settings for a pixel being equal value;
 - determining a desired number of gray levels to be available for display on said color display, wherein said desired number of gray levels is greater than said number of true gray levels natively supported by said color display and wherein said desired number of gray levels is a multiple of said number of true gray levels natively supported by said color display;
 - receiving a number that identifies a level of said desired number of gray levels to be displayed at a select pixel;
 - dividing said received number by said multiple to compute a quotient, wherein said quotient provides a preliminary value for each of the color drive settings for the select pixel;
 - based on a remainder obtained from said dividing, determining an adjustment to said preliminary value for at least one of the color drive settings for the select pixel; and
 - using said color drive settings to output the select pixel on said color display.

46. (Previously Added) The method of claim 45 wherein said color drive settings comprise red, green, and blue drive settings, and wherein the method further comprising:

when said remainder is zero, determining no adjustment to be made to said preliminary value for any of the color drive settings for the select pixel;

when said remainder is a first non-zero value, determining an increase in intensity of said red or blue drive setting;

when said remainder is second non-zero value, determining an increase in intensity of said green drive setting; and

when said remainder is a third non-zero value, determining an increase in intensity of said green drive setting and an increase in intensity of one of said red and blue drive setting.

47. (Previously Added) The method of claim 45 wherein said multiple is four.

48. (Previously Added) The method of claim 47 wherein said number of true gray levels natively supported by said color display is 64, and wherein said desired number of gray levels to be available for display on said color display is 256.

49. (Previously Added) A method of enhancing gray scale output on a color display, said method comprising:

determining a number of true gray levels natively supported by said color display, wherein said true gray levels each correspond to all color drive settings for a pixel being equal value;

determining a desired number of gray levels to be available for display on said color display, wherein said desired number of gray levels is greater than said number of true gray levels natively supported by said color display;

receiving a number that identifies a level of said desired number of gray levels to be displayed at a pixel;

dividing said received number by a ratio of said desired number of gray levels to said number of true gray levels natively supported by said color display to compute a quotient, wherein said quotient provides a preliminary value for each of the color drive settings for the select pixel;

when a remainder obtained from said dividing is zero, setting each of the color drive settings to the preliminary value for outputting the select pixel; and

when said remainder obtained from said dividing is non-zero, adjusting said preliminary value for at least one of the color drive settings for outputting the select pixel.

50. (Previously Added) The method of claim 49 wherein said color drive settings comprise red, green, and blue drive settings, and wherein the method further comprising:

when said remainder is a first non-zero value, determining an increase in intensity of said red or blue drive setting;

when said remainder is second non-zero value, determining an increase in intensity of said green drive setting; and

when said remainder is a third non-zero value, determining an increase in intensity of said green drive setting and an increase in intensity of one of said red and blue drive setting.

51. (Previously Added) The method of claim 49 wherein said ratio is 4/1.

52. (Previously Added) The method of claim 51 wherein said number of true gray levels natively supported by said color display is 64, and wherein said desired number of gray levels to be available to display on said color display is 256.